CLIMATE CHANGE AND THE SALEM MARITIME NATIONAL HISTORIC SITE

ARTIST COLLABORATION

"Climate change is fundamentally the greatest threat to the integrity of our national parks that we have ever experienced. Current science confirms the planet is warming and the effects are here and now."
- National Park Service -

Is Climate Change Real?

Climate Change is Real.

The Intergovernmental Panel on Climate Change found that 97% of scientists agree that it is real. And they agree that the main cause is human activity: industrialization based on the use of fossil fuels and resulting carbon emissions.

Can Climate Change Be Slowed Down or Reversed?

Only action by human beings can save the world – our countries, cities, towns and our National Parks – from the worst impacts of climate change.

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What are the Local Impacts of Climate Change ?

Higher Temperatures

Between 1895 and 2011 the average temperatures in the Northeast USA increased by 2°F.

The increase over the next century may be more than 10°F.

By 2070 there may be 90 days of over 90°F in Salem.

Sea Level Rise

Sea levels in Salem are rising.

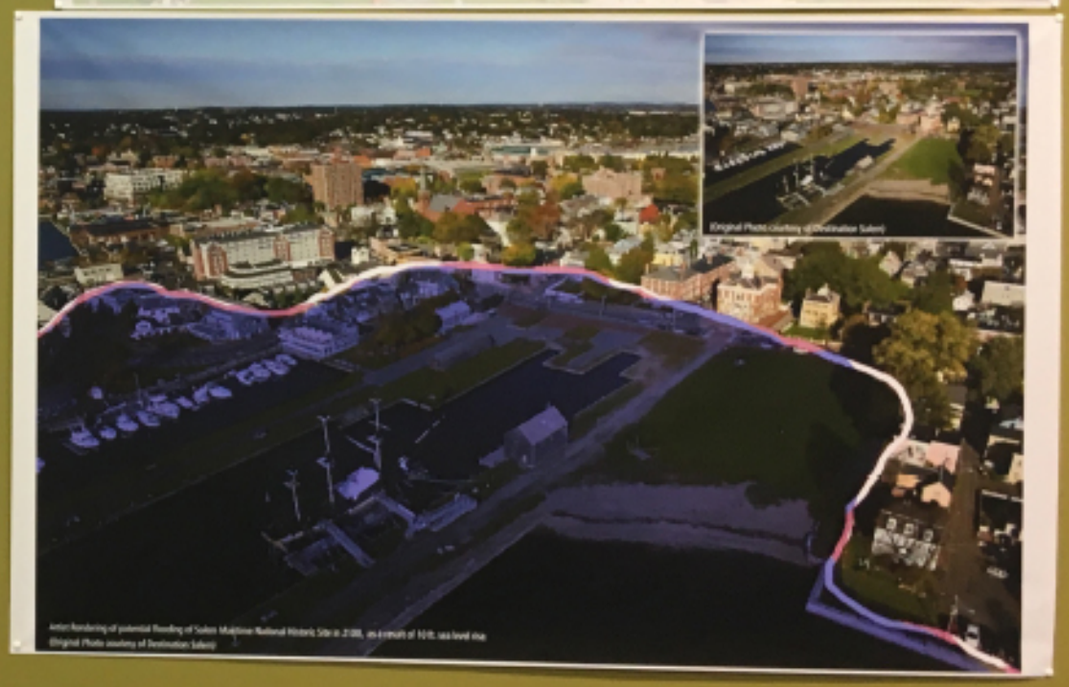
By the end of the century sea levels could rise over 10' (meters).

Combined with storm surge, the possibilities of extreme flooding increase.

Extreme Precipitation

By 2050 Salem will likely experience many more rain or snowfall events similar to Winter Storm Nemo in 2013.

This storm dumped over 2' of snow and produced hurricane-force winds.



"CLIMATE CHANGE DOES NOT RESPECT BOUNDARIES"

AND
HISTORIC SITE

pacts
?

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CLIMATE CHANGE AND THE NATIONAL PARK SERVICE

Silk Painting, Climate Change Images and the National Park Service

Dramatic shifts in the landscape and cultural resources of our national parks as a result of the effects of climate change are often hard to understand through scientific facts and figures alone.

Susan Ouanesavanh, silk painter/environmental planner and Leslie Bartlett, photographer/graphic designer, collage Susan's silk paintings, of the effects of climate change, fire, drought, rising seas or torrential storms, on the existing landscape as portrayed in a photograph.

To create Climate Change images, photographs of Yellowstone National Park, the Statue of Liberty National Monument and Ellis Island, and Joshua Tree National Park have been collaged with Susan's silk paintings.

For more scientific information and resources relating to the effects of climate change on these national parks, as well as Glacier National Park, please turn around and read the pillars in front of this exhibit.

Yellowstone National Park

Statue of Liberty
National Monument and Ellis Island

Joshua Tree National Park

Grinnell Glacial Recession Over Time
Taken from the summit of Mount Gould, Glacier National Park, Montana

HOPE FOR

STEPS
ADAPTATI

DARIES"

'LE RÉCHAUFFEMENT CLIMATIQUE
N'A PAS DE FRONTIÈRE'

"EL CAMBIO CLIMÁTICO
NO RESPETA FRONTERAS"

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CLIMATE CHANGE AND
HOPE FOR OUR FUTURE

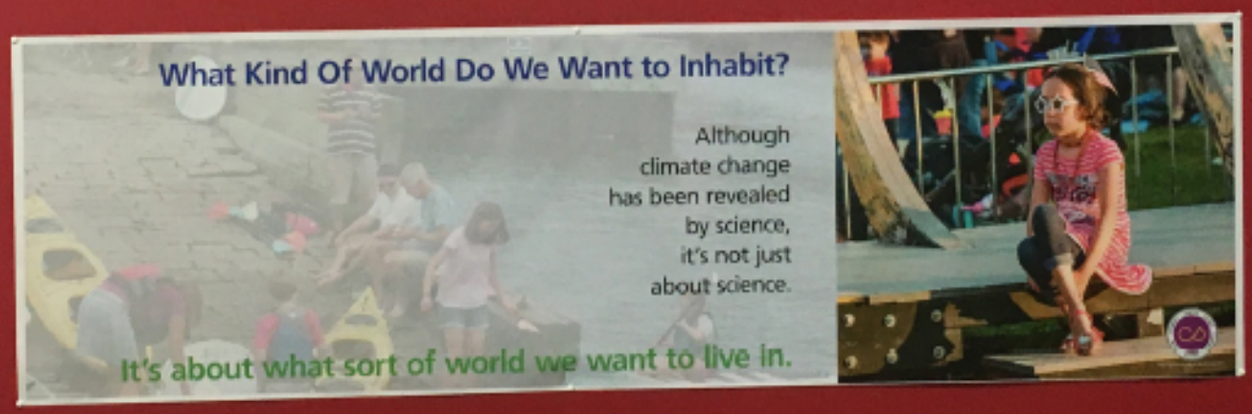
HOPE FOR OUR FUTURE IN SALEM

Salem Maritime National Historic Site
is actively looking to be
'Climate Friendly and Climate Ready.'

STEPS THAT ARE BEING TAKEN

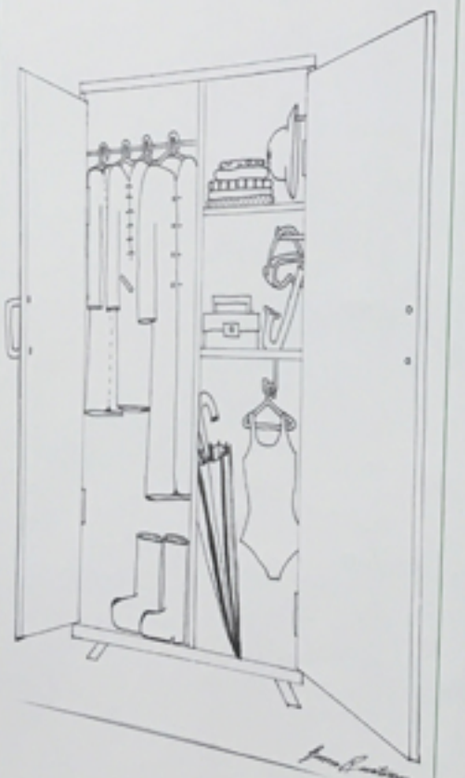
ADAPTATION

MITIGATION



"ZMIANY KLIMATYCZNE
NIE UZNAJĄ ŻADNYCH GRANIC"

WEATHER
tells us what to wear today.



CLIMATE
tells us what clothes
to keep in our closet.

Resources

Joshua Tree National Park

1. NPS Websites
2. "Climate Change Threatens an Iconic Desert Tree"
Ophia Carey Davidson, National Geographic, Oct. 2015.
3. "Drought, Heaters Decline of the Joshua Tree, California's Desert Symbol"
Louis Sahagun, LA Times, June 2015.
4. "Global Warming May Push Joshua Tree Out of Namesake National Park"
Climate Central, June 2011.
5. "Past and ongoing shifts in Joshua tree distribution support future modeled range contraction"
Cole KL, Ironside K, Eischeid J, Garfin G, Duffy PB, Toney C.
Applied Ecology. Jan 21 (1) p 137-49

Glacier National Park

1. NPS Websites
2. "Global Warming: The Great Thaw" Kitty Warnick, The Washington Post, Nov 2015
3. Retreat of Glaciers in Glacier National Park. Daniel Fagre and Lisa Wotten. USGS.
4. "Climate Change Trends, Impacts and Vulnerabilities in Glacier National park, USA"
Patrick Gonsalez: Natural Resource Stewardship and Science. US NPS. Oct 2014.
5. "Documenting Glaciers in the Dying Days of Ice" Brian Kahn. August 3, 2016. Climate Central

Statue of Liberty and Ellis Island National Monument

1. NPS Websites
2. World Heritage and Tourism in a Changing Climate. 2016
UNESCO, United National Environment Programme, Union of Concerned Scientists

Yellowstone National Park

1. NPS Websites
2. World Heritage and Tourism in a Changing Climate. 2016. UNESCO,
United National Environment Programme, Union of Concerned Scientists

Exhibit Produced and Created by Susan Quatteman and Leslie Barlett,
SQ & LB Artist Collaboration

With grateful thanks to

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Larry Perez, Communications Coordinator, Climate Change Response Program
Barbara Warren, Executive Director, Salem Sound Coast Watch

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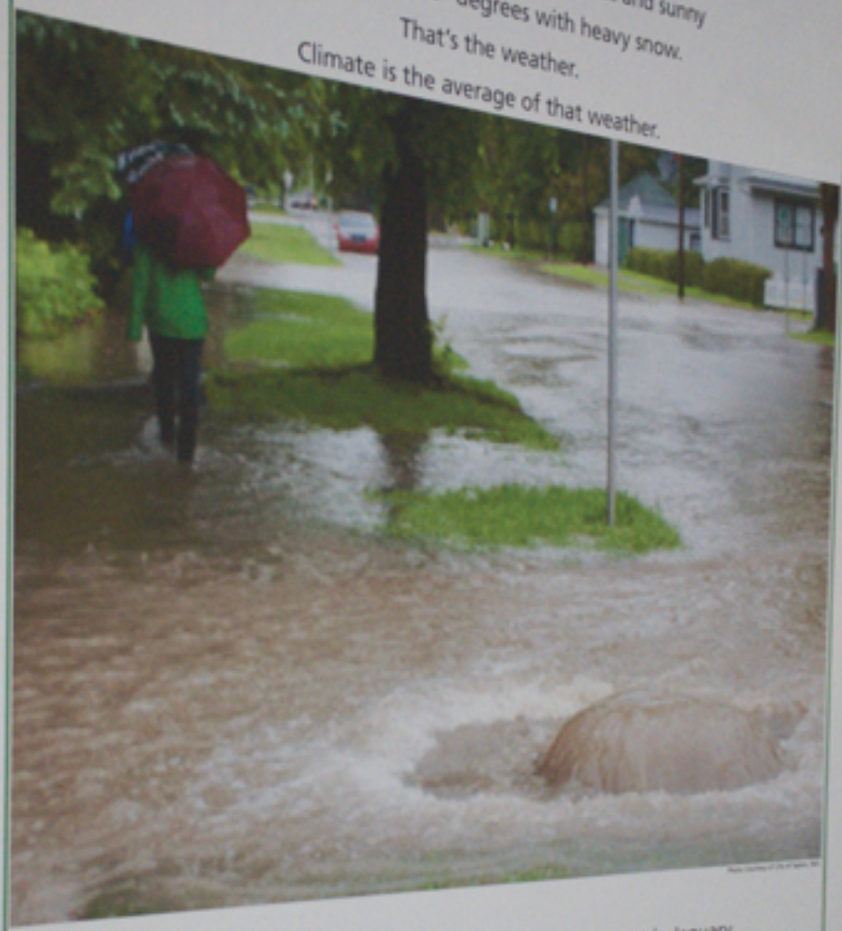

CHANGING THE EARTH'S CLIMATE

difference between WEATHER and CLIMATE?

Climate is what you expect, weather is what you get.
Weather is what you see outside on any particular day.
So, for example, it may be 75° degrees and sunny
or it could be 20° degrees with heavy snow.
That's the weather.
Climate is the average of that weather.

For example, you can expect snow in the Northeast in January
or for it to be hot and humid in the Southeast in July.
This is climate.

The climate record also includes extreme values
such as record high temperatures or record amounts of rainfall.
If you've ever heard your local weather person say
"today we hit a record high for this day,"
she is talking about climate records.
So when we are talking about climate change,
we are talking about changes
in long-term averages of daily weather.
In most places, weather can change
from minute-to-minute, hour-to-hour,
day-to-day, and season-to-season.
the average of weather over time and space.